

Title (en)

Pixel Circuit, Display Device and Method for Driving Pixel Circuit

Title (de)

Pixelschaltung, Anzeigevorrichtung und Verfahren zur Ansteuerung einer Pixelschaltung

Title (fr)

Circuit de pixel, dispositif d'affichage et procédé d'attaque de circuit de pixel

Publication

EP 1632930 B1 20130731 (EN)

Application

EP 04735969 A 20040603

Priority

- JP 2004008055 W 20040603
- JP 2003159646 A 20030604

Abstract (en)

[origin: EP1632930A1] A pixel circuit, display device, and method of driving a pixel circuit enabling source-follower output with no deterioration of luminance even with a change of the current-voltage characteristic of the light emitting element along with elapse, enabling a source-follower circuit of n-channel transistors, and able to use an n-channel transistor as a drive transistor of a light emitting element while using current anode-cathode electrodes, wherein a capacitor C111 is connected between a gate and source of a TFT 111 as a drive transistor, a source side of the TFT 111 is connected to a fixed potential (for example GND) through the TFT 114, the gate and drain of the TFT 111 are connected through the TFT 113 to cancel the threshold value Vth, the threshold value Vth is charged in the capacitor C111, and the input voltage Vin is coupled with the gate of the TFT 111 from the threshold voltage Vth.

IPC 8 full level

G09G 3/32 (2006.01); **H01L 51/50** (2006.01); **G09G 3/20** (2006.01); **G09G 3/30** (2006.01)

CPC (source: EP KR US)

G09G 3/20 (2013.01 - KR); **G09G 3/30** (2013.01 - KR); **G09G 3/3233** (2013.01 - EP US); **G09G 2300/0819** (2013.01 - EP US);
G09G 2300/0852 (2013.01 - EP US); **G09G 2300/0861** (2013.01 - EP US); **G09G 2310/0256** (2013.01 - EP US);
G09G 2320/043 (2013.01 - EP US)

Citation (examination)

- KANICKI J ET AL: "Amorphous Silicon Thin-Film Transistors Based Active-Matrix Organic Light-Emitting Displays", ASIA DISPLAY / IDW, AMD2-1 INVITED, LONDON UK, 1 January 2001 (2001-01-01), pages 315 - 318, XP007015285
- JOON-CHUL GOH ET AL: "A New Pixel Circuit for Active Matrix OrganicLight Emitting Diodes", IEEE ELECTRON DEVICE LETTERS, IEEE SERVICE CENTER, NEW YORK, NY, US, vol. 23, no. 9, 1 September 2002 (2002-09-01), XP011066668, ISSN: 0741-3106

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EP1714267B1; US8890180B2; US9997584B2; US11417720B2; US12063829B2; US8803768B2; US10546529B2; US11887535B2;
US7817117B2; US7982696B2; US8164547B2; US8599115B2; US8872739B2; US9041630B2; US9379142B2; US9569996B2

Designated contracting state (EPC)

DE FR GB

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JP 2004361640 A 20041224; JP 4062179 B2 20080319; KR 101033674 B1 20110512; KR 20060026030 A 20060322;
TW 200428323 A 20041216; TW I243352 B 20051111; US 2007120795 A1 20070531; US 7714813 B2 20100511; WO 2004109639 A1 20041216

DOCDB simple family (application)

EP 04735969 A 20040603; CN 200480015568 A 20040603; JP 2003159646 A 20030604; JP 2004008055 W 20040603;
KR 20057023045 A 20040603; TW 93116242 A 20040604; US 55837204 A 20040603